

AMENDMENTS TO THE CLAIMS

1-18 (Cancelled)

19. (Currently amended) A side-emitting illumination device for uniformly distributing light from a light source comprising:

~~a light source,~~

a light-transmitting rod which permits substantially total internal reflection, and
a reflective outcoupling material affixed to an outer surface of the rod,

wherein an angular width of the reflective outcoupling material affixed to the outer surface of the rod controls an angular distribution of light leaving the side of the rod;

~~wherein the angular width of the reflective outcoupling material varies along a length of the rod to provide substantially uniform light distribution.~~

20. (Previously Presented) The side-emitting illumination device of claim 19, wherein the light source further comprises a plurality of LEDs.

21. (Previously Presented) The side-emitting illumination device of claim 20, wherein the plurality of LEDs includes at least a red, a green, and a blue LED which are mixed to generate white light.

22. (Previously Presented) The side-emitting illumination device of claim 21, wherein the plurality of red, green, and blue LEDs are mixed to generate white light chromaticity.

23. (Previously Presented) The side-emitting illumination device of claim 21, wherein the plurality of red, green, and blue LEDs are mixed to generate dynamic color effects.

24. (Previously Presented) The side-emitting illumination device of claim 19, wherein the rod is a flexible rod.

25. (Previously Presented) The side-emitting illumination device of claim 19, wherein the rod is a rigid rod.

26. (Previously Presented) The side-emitting illumination device of claim 19, wherein the reflective outcoupling material is paint.

27. (Previously Presented) The side-emitting illumination device of claim 26, wherein the paint is white paint.

28. (Previously Presented) The side-emitting illumination device of claim 27, wherein the white paint is distributed in such a way as to control the angular distribution of light leaving the rod.

29. (Previously Presented) The side-emitting illumination device of claim 27, wherein the white paint is distributed in such a way as to ensure uniform light distribution along the length of the rod.

30. (Previously Presented) The side-emitting illumination device of claim 19, wherein the rod is an elliptical rod in cross-section.

31. (Previously Presented) The side-emitting illumination device of claim 19, wherein the rod is a square rod in cross-section.

32. (currently amended) The side-emitting illumination device of claim 19, wherein the angular width of the reflective outcoupling material varies along a length of the rod to provide substantially uniform light distribution, and wherein the rod is a combination of straight and curved edges in cross-section.

33. (Previously Presented) The side-emitting illumination device of claim 32, wherein the combination of straight and curved edges vary in configuration along the length of the rod.

34. (Previously Presented) The side-emitting illumination device of claim 19, wherein the reflective outcoupling material comprises a combination of white paint and fine dots with varying packing density.

35. (Previously Presented) The side-emitting illumination device of claim 19, wherein the device further comprises a mirror at an end of the rod away from the light source.

36. (Previously Presented) The side-emitting illumination device of claim 35, wherein the mirror reflects light that travels an entire length of the rod.

37. (Previously Presented) A method of controlling an angular distribution of light leaving a side of a side-emitting illumination device for uniformly distributing light comprising: providing a light-transmitting rod which permits substantially total internal reflection with a reflective outcoupling material along its side;

controlling a width of the reflective outcoupling material to achieve a desired angular distribution of light leaving the side of the rod, wherein the width of the reflective outcoupling material varies along a length of the rod to provide substantially uniform light distribution; and illuminating the light-transmitting rod with a light source.

38. (Currently amended) A side-emitting illumination device for distributing light from a light source comprising:

~~a light source;~~

a light-transmitting rod which permits substantially total internal reflection, and a reflective outcoupling material affixed to an outer surface of the rod,

wherein the reflective outcoupling material exclusively controls an angular distribution of light leaving a side of the rod,

wherein an angular width of the reflective outcoupling material varies along a length of the rod to provide substantially uniform light distribution.

39. (Currently amended) A side-emitting illumination device for distributing light from a light source comprising:

~~a light source;~~

a light-transmitting rod which permits substantially total internal reflection, and
a reflective outcoupling material affixed to an outer surface of the rod,

wherein the reflective outcoupling material exclusively controls an angular distribution of light leaving a side of the rod,

wherein an angular width of the reflective outcoupling material varies along a length of the rod, wherein the reflective outcoupling material is distributed in a series of stripes perpendicular to the length of the rod to provide substantially uniform light distribution along the length of the rod.

40. (Previously Presented) The side-emitting illumination device of claim 39, wherein at least one of a spacing between the stripes or the width of the stripes is varied along the length of the rod.

41. (Previously Presented) The side-emitting illumination device of claim 39, wherein a width of a spacing between the stripes is varied along the length of the rod.

42. (Previously Presented) The side-emitting illumination device of claim 39, wherein the stripes further comprise fine dots with varying packing density.